

Sarah E. Braddock Clarke

Sarah E. Braddock Clarke is an author, curator and consultant who lectures at University College Falmouth in Cornwall, where she works on the Fashion Design and Performance Sportswear Design B.A. (Hons) Degrees. Co-author of *SportsTech* and co-author of *Techno Textiles I* and *II*, Braddock Clarke is a leading expert in the field of fashion and performance sportswear. Her research focuses on emerging technologies and new materials, and explores the impact of digital media on textiles created for both fashion and sportswear. Often called upon to identify the materials and designs that are taking clothing into the future, Braddock Clarke has looked to film and science-fiction to predict what humans will be wearing in the decades to come. When interviewed for this book, Braddock Clarke described how innovation and tradition will work together in future, pointing out how cutting-edge materials can be paired with natural fabrics, and how time-honoured tailoring techniques can underpin innovative technologies.

Where are new fashion and sportswear coming together today?

Fashion has actually given sportswear a chicer look, and sportswear is making mainstream clothing more comfortable. Comfort is as important in fashion as it is in sport; after all, you cannot be truly elegant if you don't feel at ease in what you are wearing.

How is performance sportswear influencing fashion today?

Many new materials and technologies coming into mainstream fashion today were originally developed for use in the area of high-performance sportswear. Body-conscious looks are being adopted from sportswear as well as the introduction of design elements created for protective motorbike wear, surf wear, snowboard wear, skate wear, cycling wear, equestrian wear, tennis wear, etc. The looks that result link the wearer to a sporty lifestyle. Right from the start of the design process, manufacturers are considering how the garment can make the wearer look and feel better psychologically and physically. This is because such styles enable the wearer to look as if they have the right balance of work and play - possessing a healthy body and active mind. Rather than being a workaholic, the wearer appears passionate about life and leisure, and is actively taking part.

Which performance sportswear labels are most innovative?

The big surf labels such as Quiksilver, O'Neill, Oakley, Rip Curl, Animal and Billabong invest in the latest materials and technologies, developing ways to protect the wearer from cold water while being extremely comfortable and looking good. For example, O'Neill's *Superkini* combines good looks with advantageous technology – exemplifying how fashion and sport can work well together. Advertised as “The Bikini that Sticks with You”, the bikini is made from an ultrafine polyester nanofibre called *Nanofront* by Teijin Fibres that has a larger surface area than normal fibres which exerts a frictional force enabling it to grip superbly. It feels and looks soft and silky but is high-performance and will cope with the wearer diving off rocks and paddling through waves to haul themselves up to stand on a board, bikini in tact. Another example is Oakley's *Blade* boardshorts that offer “power, endurance and balance” by using dual construction

technology for a two-layer garment. The under layer is tight and stretchy like cycling shorts and is made of techno materials incorporating a high-performance compression liner. This holds the muscles in place and prevents muscle fatigue so the wearer will recover well from physical exertion and get less 'muscle burn'. As the muscles are supported the wearer will be less likely to pull anything or get cramp. It also offers real comfort with no rashes or rubbing. The outer layer looks like more traditional boardshorts but is made from a superlight (near zero actually), non-absorbent hydrophobic material that will not get heavy in the water and dries very quickly.

In what ways will performance sportswear and fashion come together in future?

I foresee the very body-conscious look pervading in future with its figure-hugging, wrapping, bonding (some with more than a nod to fetish wear) in various degrees of stretch - elastostretch / ultra-stretch / super 4-way stretch and engineered-stretch. I also anticipate a look that relates the human form to the space around it, linking fashion with architecture in sculptural, anthropomorphic and ergonomic ways by using materials that possess a 'body' of their own. In addition, the use of digital technologies to design, create and manufacture clothing on demand offers scope for individuals to be able to have clothing custom-made to their own specifications.

Which of today's materials will continue to be used in future performance clothing?

Wool has many advantageous inherent properties and I see this as a naturally high-performance material and one that will continue to be used for both cold weather wear and warm weather wear. Cotton's super-absorbency can impart great advantages and everyone enjoys the look and feel of cotton – this will continue I am sure. Likewise, tough materials such as denims and leathers will always have a part to play in both fashion and sportswear. The very latest treatments to denim render this hard-working material soft and yielding, while thin leathers provide second-skin protection. I also see a place for non-textile materials such as various woods, plastics, resins, carbon fibres and metals. These are being used in collections where they can provide strength, durability and longevity. Technology has allowed such previously rigid materials to become flexible and therefore able to be used in fashion and sportswear. Ultra-soft and ultra-light materials are also being used to cushion and protect shown in the development of air-based materials, 'memory' foams, closed cell foams and gels. These can absorb shock and distribute it evenly on impact and have had a profound influence on performance clothing. For example, Aerogel (originally created in 1931) offers a supremely lightweight thermal insulator that can protect the wearer from extreme cold. To sum up, I see the future materials for performance clothing as being the application of flexible, yielding, absorbing materials from all walks of material science – both textile and non-textile. It is an exciting area to be researching.